ODYSSEY SEARCH PARTNERS

Odyssey's Quarterly Newsletter – Q4 2017

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It's hard to see the news these days and not feel deflated. Weather-related disasters, human-made tragedies and the state of politics all make for dreadful reading. One set of people who are not feeling pessimistic about 2017 are front-office investment professionals. This is in spite of the backdrop of the "new normal" fund environment - fee pressure, firm shut-downs and the rapid growth in passive investing. Odyssey's second annual Compensation Expectations Survey shows people are envisioning a buoyant bonus season.

Also on our clients' minds is how to keep on the right side of the new legal restrictions on requesting past compensation information. Private equity firms have quietly been altering how they recruit and we shine some light there. When is the best time of year to hire is something we additionally tackle in this edition. Finally, you can't talk to a fund manager or HR professional these days without the topic of big data coming up. But how are people doing it and how are teams being put together? We aim to provide insights on this in our final article in our final newsletter of the year! As ever, let us know how we can be ever more useful to you and we look forward to continuing the dialogue.

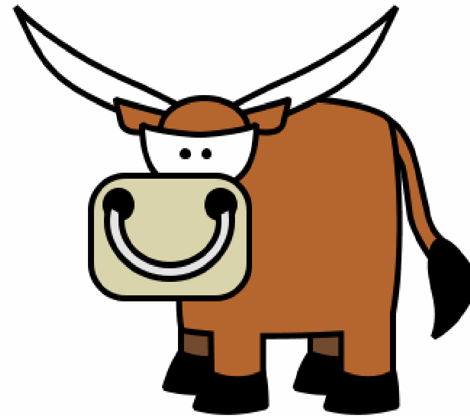
The OSP team

Hedge Fund Moves

Name	Joining	Leaving
Ben Silver	Maverick Capital	Corvex Management
Chris Gaulin	Soros Fund Management	Maverick Capital
Felix Boisse	MSD Capital	Maverick Capital
Greg Stein	Act II Partners	Folger Hill Asset Management
Harsh Kondapalli	Diameter Capital Partners	Sound Point Capital
Michael Eng	Samlyn Capital	Venetus Partners
Michael Kimlat	Margate Capital	York Capital
Robert Blatt	Briarwood Chase Management	Paulson & Co
Ryan Hoadley	Holocene Advisors	Newbrook Capital
Sebastien Hutchinson	Crescent Park Management	Nokota Management

Note: We came across these moves in the course of our business; they do not include Odyssey placements, respecting the confidentiality of our candidates and clients.

The Bulls are Back



Public markets analysts are expecting huge comp bumps this year-end, while Private Equity analysts are expecting much more modest – and probably realistic – year-on-year increases (though they get their windfall from their carry).

In late September this year, Odyssey Search Partners conducted our annual compensation expectations survey. Over 650 professionals at leading hedge funds and private equity firms responded (with "leading firms" being defined by either well-regarded, established firms or high-profile start-ups). We focused on respondents from those in investment seats (not trading or support roles) at fundamentally driven investment firms (not macro and quant firms). Respondents were asked about their specific role, the firm they represent, past compensation history, and expectations for 2017.

The results are still being analyzed, but here are the initial findings. Note the focus here is on bonuses and the difference between ACTUAL 2016 bonuses and their EXPECTATIONS for year-end 2017 bonuses. Other fuller analyses (including base salary, comp levels by firm size/strategy, single manager vs. multi-manager, mega-fund vs. mid-market fund etc.) will be included in the full compensation reports:

Hedge Funds

After a tough 2016, optimism has returned to investment professionals at hedge funds. Our survey results found that investment professionals are expecting year-end bonuses to be 39% higher this year, rising from $403k in average bonus actually received in 2016 to an average expectation of $562k. This reversal of fortune is all the more remarkable given the fact that at this time last year, they were going into year-end expecting a 7% decrease from their 2015 bonuses.

Hedge Fund juniors (Analysts & Associates) have more modest comp expectations. With an average of $190k bonus at year-end 2016 (clearly no small number for someone typically in their mid-20s), they now expect $216k this year-end; an increase driven mostly by the associates at top-performing funds. Yet it's mid and senior people where expectations have ballooned, presumably because their compensation is more tied to performance, and firms in general have put up very positive numbers this year (according to BarclayHedge, as of October hedge funds are up almost 7.5% on the year, as opposed to only +4% this time last year). Those with over 10 years investing experience are expecting on average a $1.38m bonus this year (a 79% leap on their $771k average year-end 2016 bonus). This was driven by quite a few long/short equity PMs expecting compensation of well over $2m this year, while they had actually made considerably less in 2016.

The size of the firm certainly makes a difference to a respondent's expectations. Those at larger funds (>$5Bn) are expecting 29% more in year-end bonus than those at smaller funds (<$1Bn). However, there are two more prominent factors driving bonus expectations, the more obvious of which being fund performance. Investment professionals at firms where the fund has performed well this year (returning at least 5%) are expecting 56% higher bonuses than those at poorer performing funds (returning less than 5%). The less obvious driver is investment strategy. Those investing at long/short equity and multi-strat firms are considerably more optimistic than those at event-driven or credit funds.

What's going to be fascinating to ascertain is whether or not this optimism is well-placed. After several lean years, performance has considerably improved in 2017, as illustrated by HFR's report which shows that funds on average gained every single month this year – January through September – the first time such an event has occurred since 2003. Many more firms are now above high-water marks and generating significant performance fees. But the question remains, is this good enough? 70% of investors say hedge funds have failed to meet their return expectations over the last three years (ValueWalk 9/25/17). The last time the HF industry had a strong year, back in 2013, the environment was much different - LP pressure on fees was much lower, and the capital raising environment was considerably

more attractive. By the time December comes around and the compensation decision-makers have made their determinations, many in the industry may be facing a rude awakening.

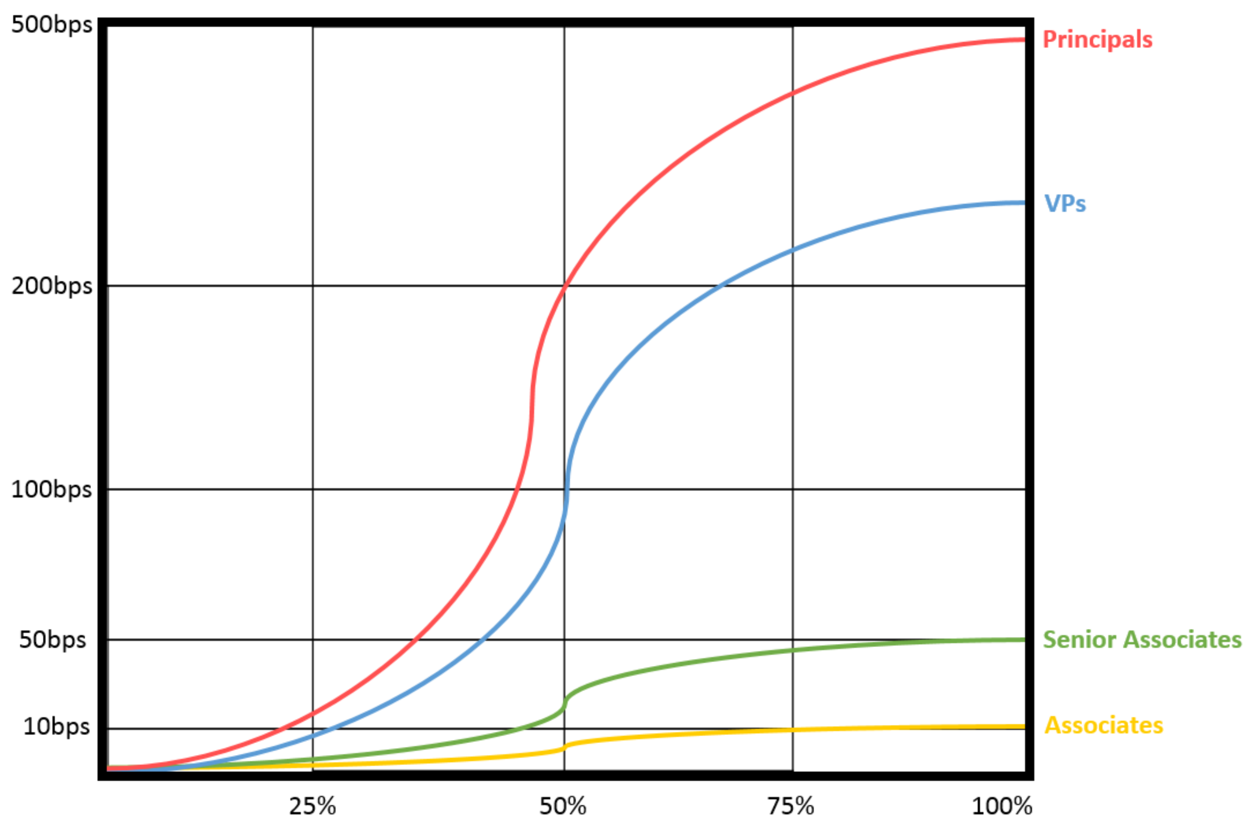
Private Equity

On the Private Equity side, cash bonus expectations are much more modest, with the average investment professional expecting a 14% increase in year-end bonus, rising from $287k year-end 2016 to an expected $327k this year. This average bonus expectation increase of 14% varies from those working out of the smallest current funds (AUM <$500m) with an 11% average bonus expectation increase, to those working out of the largest current funds (AUM >$5Bn) with an 18% average bonus expectation increase.

Interestingly, the highest bonus expectations increase came from Associates at big firms (AUM >$5Bn), who are expecting a 26% year-on-year bonus increase, from $166k to $209k. And strategy plays a role too. While it's generally positive for all private equity strategies (later stage, growth equity, special situations) those in the venture space are the most optimistic (expecting 23% bonus increases over 2016).

However, it is important to note that PE investment professionals are much less focused on annual cash bonuses since so much of their compensation is in the form of carry.

With that in mind, here are the **TYPICAL CARRY AMOUNTS BY LEVEL:**



In terms of actual dollars, when asked about the current value of their carry, the average senior Associate valued their carry at over $650k, VPs at $1.8m, and Principals at over $3m.

Given the positive returns and investment inflows that the PE industry has seen, it's more likely that these 10-20% year-on-year increases will actually be realized come year-end. For hedge fund analysts, however, more could actually turn out to be less in the end.

ODYSSEY SEARCH'S FULL COMPENSATION REPORTS FOR BOTH HEDGE FUNDS AND PRIVATE EQUITY FIRMS WILL BE RELEASED LATER IN OCTOBER 2017. PLEASE CONTACT US IF YOU ARE INTERESTED IN RECEIVING EITHER ONE.

How Firms are Preparing for the New Recruitment Law

As you have likely heard by now, on October 31st of this year, an amendment to the New York City Human Rights Law takes effect. Some are simply referring to it as "the NY salary ban law." Similar laws go into effect in Massachusetts and California next year, though the focus here is on the New York law as it's the first to be implemented. This law prohibits employers from asking about previous compensation and benefits' history at any point during the hiring process. The specifics of the new law were tackled in our previous Q3 2017 Newsletter (and the actual text can be found by googling 'nyc.gov local law 67 2017').

We thought it would be useful to look at what firms have been doing to prepare for the law's imminent arrival, as well as how the law might affect a firm's relationship with external recruiters.

First, a brief primer on the law itself

The new law aims to tackle the gender pay gap by forbidding employers from requesting a job applicant's previous compensation history (which theoretically pegs women at a lower comp number going forward). It specifically prohibits asking about compensation history and benefits directly to applicants, or through circumvention by contacting previous employers or searching public records. Exceptions are made for internal hires and candidates for whom there is a legal requirement to request compensation history (e.g. Visa applicants).

The law does permit hiring firms to ask about compensation expectations and anticipated salary, as well as conduct background searches of an applicant's non-salary information, provided that any salary info that is accidentally revealed not be relied upon when making a compensation decision (yes, that's right—you have to pretend you never saw that comp number!). And just to make things even more complex, discussing profits generated is legal, whereas payout percentages are not, and prospective year-end bonuses are currently a legal gray area. "What do you expect as a year-end bonus?" is presumably forward-looking and not something that could be viewed as requesting historical compensation (unless that has already been discussed, and guidance has been given – hence the ambiguity). Additionally, if a candidate discloses their compensation history voluntarily, without any prompting, then employers are allowed to rely on that information when making a compensation decision.

Emerging best practices

Based on all of that, there are some best practices firms seem to be employing as they prep for the new law's arrival. These include documenting any voluntary comp disclosures made by the candidate, in either written notes, by asking for email affirmations, or by asking interviewees to sign statements attesting to the voluntary nature of their disclosures. Establishing upfront prohibitions on comp history revelations in all job postings is a simple and important step, as well as removing questions relating to historical compensation on any forms and career sections of websites (using the same forms and adding a disclaimer for New York employees is not sufficient). Training interviewers on how to avoid accidentally tiptoeing into any semblance of misconduct will be important. Maybe the simplest, though highly draconian step, is for firms to expressly forbid any employee who conducts interviews from discussing previous compensation history – even in an informal setting. The basic premise is this: a little caution now can save a lot of headaches (and legal fees, damage payments and worst of all, bad press) later on. One HR Head told us that he'd managed to diffuse some internal tension by comparing these restrictions to other protected class inquiries; for example, twenty years ago, it was commonplace to ask about someone's age, religion or marital status in an interview. Now (almost) everyone knows that these are off-limits.

What lies ahead

Even with the law's passing, firms will strive to make the most informed hiring decisions, while still managing costs. Attracting and retaining talent will remain a key area of focus. We don't imagine that firms will respond by having "fixed compensations for roles," especially in investment management where titles don't neatly correspond to responsibilities, let alone performance. Instead, by outlawing discussions around previous compensation history and prohibiting disclosure of W2 numbers, compensation information has been transformed into an even more scarce, and therefore prized, commodity.

Those who track compensation and have market intel about general comp ranges will therefore be held in ever higher esteem, as this data will grow additionally valuable. Third parties may also play the important role of sanity checking offers and assessing the reasonability of the "compensation expectations" coming from candidates. We also foresee there'll be more protracted compensation discussions. Rather than firms being able to make an offer of "historical plus x %," they'll instead likely say "we were thinking of offering this for the position based on our understanding of the market. Does this sound reasonable to you?" A rejection from the candidate to this soft offer will then lead to the firm improving the offer up to the point of walking away. We imagine this back-and-forth will likely be handled by intermediaries, trained and incented to find common ground, and who have a sense of what is "market" for the role. This dynamic would allow both candidates and prospective employers to avoid these rather messy and awkward conversations.

Shining light on the compensation darkness

There are a few legal ways of keeping somewhat in the loop. As long as the candidate gives past numbers voluntarily, without encouragement, these numbers can be noted and used. In the last guidance from the City, requesting compensation details of alternative offers is permissible. And once someone has been hired (so no longer an 'applicant'), previous compensation can be requested. This can lead to a situation of less upfront guidance and more post-hiring compensation discussions. "Come here for a base and discretionary bonus and we'll discuss all those messy bonus details later in the year."

Recruiters will be bound by the same restrictions as employers, yet maintain the advantage of possessing market intelligence, often accumulated over many years, perhaps facilitated by surveys and careful collection of data. They will also have candidate-specific knowledge established through the candidate's reactions to previous offers, as well as feedback on what other clients have offered for certain positions and candidates' reactions to those offers, thus allowing them to provide a meaningful insight into what is "a fair and acceptable" offer. While hardly a substitute for exact historical compensation figures, that level of market intelligence may shine some light on an area that might otherwise be shrouded in total obscurity. While recruiters and employers will no doubt be committed to staying firmly on the right side of the law, taking steps such as these, in addition to utilizing any help that can be provided, will help minimize the potential impact of the law's implementation.

Private Equity Hiring Charting a New Course

The ocean liner of private equity recruiting, after holding straight and steady for a number of years, has begun to make some noticeable turns. The changes are more evolution than revolution; as noted earlier, private equity firms have been doing very well and optimism amongst teams is high. This is not the time for a wholesale reboot.

However, the traditional model of private equity firms narrowly focusing their hiring efforts on bankers and MBAs is definitely being challenged, as firms seek to incorporate undergrads, internal promotes and senior hires. Firms are initiating their hiring cycles sooner in the year, in reaction to increased competition in the recruitment landscape, question marks over the value of business school, and rapid expansions of certain firms causing increased demand at the mid and senior-levels.

To better understand these changes, we investigated PE's latest recruiting procedures with several Partners and HR Managers at leading funds. They offered some useful insight into how they are steering their ships in these choppier recruiting waters.

Why go to the barrel, when you can pluck straight from the tree?

One of the major transformations occurring in the realm of PE recruitment is the willingness of firms to hire undergrads with no previous work experience (barring a couple of summer internships). Firms including Warburg Pincus, Blackstone, Silver Lake, Bain, and Leonard Green are now hiring straight from campus, due to the fact that much of the junior work at a PE firm involves laborious and fairly pedestrian tasks. These include liaising with investment bankers, attending conferences, signing confidentiality agreements and researching and analyzing CIM proposals – tasks that keen, freshly minted graduates are typically happy to take on.

Other aspects of the job are more quantitative, such as building financial models. But talking to several PE professionals, they no longer believe that investment banking is a necessary path to the buy-side. One Senior Member of a mega-fund which has experimented with direct college hires told us: "We've actually found the best Analysts have come directly from undergrad. They're relatively inexpensive too, and while they need training, they don't actually need that much before continuing to learn on the job. The key thing for us is that we get talent who we might not have been able to hire during the on cycle rat race, or who might otherwise have gone the tech route."

An HR Coordinator at a mid-market PE firm supported that conclusion by confiding: "We made our first hire direct from campus three years ago, and we repeated in recent summers too. We haven't found a considerate skills gap - and where there's a skill lacking, we support the Analyst by having them take courses to remedy the issue."

One drawback to this approach is the fact that smaller shops may not have the resources to monitor and oversee this training. Transitioning through an investment banking program also provides exposure to transactions, helping build industry knowledge, corporate awareness and deal savviness. The banks act as a filtering mechanism too, making it much easier to find a star financial analyst from the Morgan Stanley i-banking class than by simply combing through the Princeton senior yearbook. By skipping this step, firms are essentially relying on their junior hires' abilities to hit the ground running, which makes the candidate interview and selection process all the more vital. On a more mundane note, one HR Head declared, "We find it useful to have employees who know how to dress, act appropriately, and have made that transition from college to the workplace in terms of everything from attitude, business communications and even what's appropriate business attire!"

Additionally, from the Analyst perspective, not everyone is persuaded to go the non-standard "direct to the buyside" route. As a recent graduate told us, "I definitely saw more finance firms on campus in my senior year than had been there in years past. But while they were trying to recruit us directly, along with Uber and Google, I just felt like investment banking was the best way to start my career."

Going off on on-cycle

On-cycle recruitment has often been slated by both Fund Managers and HR personnel for being conducted too soon (with candidate assessments being made as early as January in some cases, and 'coffee chats' starting after Thanksgiving), making it more difficult to properly assess applicants given their truncated career experience, and minus even a first-year banking review.

Yet despite these shortcomings, the process remains intact, partly for logistical reasons. As one Recruiting Manager at a mega-fund explained, "It's easier for deal professionals to give up a day or two, versus having to run a full scale off-cycle process over a month or two."

More firms are leaving one or two spots open for off-cycle hiring so they can remain in the market and have a chance to vet some candidates more thoroughly. But given the competitive nature of PE recruitment, it is doubtful that firms will have the wherewithal to fully abandon this tradition anytime in the near future. To quote a Partner at a newly-established PE shop: "While on-cycle recruiting has its challenges, I can't imagine us moving away from it - at least not while other funds we compete with are hiring talent from that pool."

Don't go searching for what's right in front of you

Another hiring trend occurring in the PE industry is Associate direct promotes. Increasingly, Associates are being offered Senior Associate and VP positions without leaving for business school. An HR manager at one of the mega-funds told us that they no longer require Associates to leave in order to get MBAs. "Our official policy is still that there is no route to staying on directly at the firm, but there have now been cases where we've allowed it - though we're not publicizing that."

Those who do leave for their MBA are sometimes doing so in order to transition into a new industry rather than build their career at their current PE firm. There is a noticeable pattern of fewer students returning to PE after completing MBAs at leading schools, as these numbers bare out:

% of class going to work in PE on graduation
Graduating Class of 2014: HBS - 15%; Wharton - 12%
Graduating Class of 2015: HBS - 14%; Wharton - 9.6%
Graduating Class of 2016: HBS - 12%; Wharton - 8.6%

And this trend can't be explained by fewer PE associates being admitted to business school

% of class graduating Business school with a PE background pre-Bschool
Graduating Class of 2015: HBS - 16%; Wharton - 12%
Graduating Class of 2016: HBS - 18%; Wharton - 12%

Instead, the likely drivers behind those diminishing PE-returning numbers are fewer spots for MBA graduates, partly as a result of direct promotes, as explained above, combined with the strengthening of alternative options (tech/corporate/start-ups). While MBAs offer fantastic advantages (theoretical underpinnings, the ability to experience a new sector through a summer internship, an unparalleled business network), questions are being posed in some quarters about their relevancy and their value for money, particular if not being used for a career change. So we could be looking at a self-reinforcing cycle here: PE firms offering fewer post-MBA spots, leading to fewer PE Associates leaving for business school and getting direct promotions, reducing the need for MBA hires.

Out with the old, in with the… older?

PE firms have traditionally been structured as classic pyramids, filling their senior ranks with "home grown talent." In recent years, however, new strategies and approaches were instituted, brought about by the industry's unparalleled fundraising success. Given that outside expertise is required to successfully develop an Impact Investing or Infrastructure team, let alone a Private Credit team, we are now seeing a greater proportion of Principals, Directors and Partners being laterally hired versus internally promoted.

This trend is perceived by some as a disincentive to remaining long-term at a particular fund, given that it

might lessen the chances of scaling the organizational heights. However, others recognize the business necessity to quickly scale their firms' senior management capabilities by adding senior lateral talent. And attracting external perspectives and innovative ideas are good for the organization's DNA, particularly for those that have had the reputation of insularity and inflexibility.

Looking ahead

If current trends are any indication, we're likely to continue experiencing shifts in how PE funds think about recruitment over the coming years. Standards and traditions are slowly being eroded in favor of more nimble, adaptive approaches; those that involve the procurement of talent straight from college campuses, the firm's own junior talent pool, and the outside world at-large. And although on-cycle recruitment remains in effect, its drawbacks are growing ever more apparent, leading some to opine on potential alternatives.

Private Equity has attracted record amounts of capital in 2017. Many firms awash with cash and with new destinations on the horizon are looking to steer clear of the competition by adapting their long-standing recruiting practices.

Private Equity Moves

Name	Joining	Leaving
Allyson Rinderle	KKR	Longitude Capital
Bhuvan Jain	Pamplona Capital Management LLP	Shamrock Capital Partners
Brandon Staub	Carlyle Group	L Catterton (formerly Catterton Partners)
Christopher Hooper	Welsh, Carson, Anderson & Stowe	Golden Gate Capital
David Habachy	Warburg Pincus	Kayne Anderson Capital Advisors
Holly Maloney McConnell	General Catalyst	Guidepost Growth Equity (formerly North Bridge Growth Equity)
Jan Peisert	TPG Capital	CVC Credit Partners
Michael Hoeksema	Battery Ventures	JMI Equity
Robert Lange	Ares Management	Court Square Capital
Skylar Hochberg	Atalaya Capital	Carlyle Group

Note: We came across these moves in the course of our business; they do not include Odyssey placements, respecting the confidentiality of our candidates and clients.

Going Against the Grain: The Growing Popularity of End-of-Year Recruitment

When everyone zigs, it often makes sense to zag. Perhaps that's why firms are increasingly bucking tradition and initiating searches at the end of Q3 and into Q4. Contrary to popular belief, late-year recruitment is not a waste of time and energy; in fact, the approach boasts considerable upside. And you wouldn't be alone - according to CareerBuilder, a company that tracks employment patterns across industries, last year 34% of firms were looking to hire in Q4 2016. This compares to 43% saying they're now looking to hire in Q4 2017.

Let's start with the obvious: There are fewer firms actively recruiting during the second half of the year than over the first two quarters. Less competition puts hiring firms in the driver's seat: they are less likely to encounter a bidding war, or to experience that oh-so-tragic sense of loss when a candidate who you shepherded through the entire recruitment process – from first round interview to contract negotiation – suddenly gets scooped up by a competitor. With less players in the game, hiring firms can take their time to ensure a smooth, diligent recruitment process, rather than race against the clock (or other firms) to make that key hire.

Deal structuring for end-of-year recruits is often far less onerous than it is for Q1 and Q2 hires, especially for senior hires where these issues are more complex. If a firm starts their hiring process in Q1, it is likely to take 2-5 months to make a hire. By that point in the year, candidates have accumulated a bonus at their current fund and are looking to get "bought out." These early-year recruits tend to use their assumed bonuses as a launch pad for negotiations, with many candidates establishing a mandatory floor price based on their expected compensation for the year. But as the Finance Gods roll dice with our collective fate, things don't always turn out as planned. Should the industry suffer yet another financial shock, for example, firms can find themselves on the hook for compensation negotiated off an inflated bonus projection. With late-year recruitment, firms can let candidates finish the year at their current fund, collect their bonus, then hire the candidates on a base salary plus target bonus with a start date as close to the start of the year as possible. End-of-year hiring allows firms to manage bonus expectations by basing their comp offers on factual data (the most recent bonus) plus a full year of contribution to the firm the candidate is joining. This tends to make deal structuring less complex. It also ensures that candidates are switching jobs because they truly believe the hiring firm represents a better opportunity, not simply to parlay their compensation expectations into an even bigger bonus at a new firm. Of course, firms hiring late in the year also maintain the optionality of buying candidates out of their current bonus, should they feel a pressing need to hire immediately.

Additionally, late-year hiring can directly impact the balance sheet. Consider this: Every year without fail, rock star candidates at underperforming funds take a peek into the job market. These are uber-talented folks who, as the months wear on, begin to realize that by virtue of their fund's overall performance, their year-end bonus won't live up to expectations (which can also affect their economics going forward). Such candidates will likely be scooped up at markedly discounted rates during Q3 and Q4, precisely because they are escaping a negative situation, and thus more willing to negotiate. Alternatively, if firms manage to finish their recruitment by year-end (not uncommon for those who really get a jump on Q4), the time consuming part of the process is complete, and they can defer all costs – of both candidates and search firm – to the following year's balance sheet (again, of more significance for senior and expensive hires). That means end-of-year hiring firms don't have to pull from this year's bonus pool to compensate their new hires; that money comes from next year's pool, which, if the new hires pan out as expected, should expand overall.

With such benefits, it's no surprise that firms are increasingly engaging in end-of-year recruitment. Of course, there are always drawbacks which any firm thinking about starting a hiring process towards the end of the year should take into consideration. One of the negatives being that you may not have access to a full candidate pool (some candidates might be waiting to see what their bonus looks like before testing the market). For that reason, many strong candidates considering an exit are likely to hold off searching until January. Yet counterintuitively, this can play into an end-of-year hiring firm's hands, as those who begin their recruitment procedures late in the year are already up and running by Q1 of the following year, which means they're more likely to know exactly what talents and skill sets they're searching for. Plus, their interview process will be much more streamlined and efficient, which always

reflects well in a candidate's eyes. So when the right person does walk through the door in Q1, the end-of-year hiring firm is ready to scoop him or her up, while the early-year firms are busy getting a sense of what the talent market looks like, and what the best fit might be.

Those in the market for pre-MBA hires, especially 2x2's (2 years banking plus 2 years private equity), best stick to Q1 and Q2 hiring given that such candidates are unlikely to leave their firm before their summer program ends. A further concern is logistics – if a firm's redemptions are handled at year-end, it might be prudent to wait until Q1 to initiate the hiring process, because that firm may be ill-equipped to identify hiring needs and budget. Similarly, HR personnel are often occupied with compensation towards the end of the year, which can place hiring decisions on the back burner.

However, particularly for senior-level employees, late in year recruitment clearly has some clear benefits, which is why we're seeing increasing numbers of firms experimenting with it.

Private Credit Moves

Name	Joining	Leaving
Brian Miazga	NXT Capital	CIT Group
Dan Dube	HIG Whitehorse	THL Credit
Dev Gopalan	Angel Island Capital	KKR
Felix Shabashevich	CPP Investment Board	Lstar
Jack Le Roy	Thoma Bravo Credit	Summit Partners
Jens Ernberg	Capital Dynamics	Credit Suisse Park View BDC
Justin Lawrence	Adams Street Partners	Ares Management
Mario Shaffer	HIG Whitehorse	Capitala
Mike Morris	Northleaf Capital Partners	HIG Whitehorse
Tom Hall	Capital Dynamics	Credit Suisse Park View BDC

Note: We came across these moves in the course of our business; they do not include Odyssey placements, respecting the confidentiality of our candidates and clients.

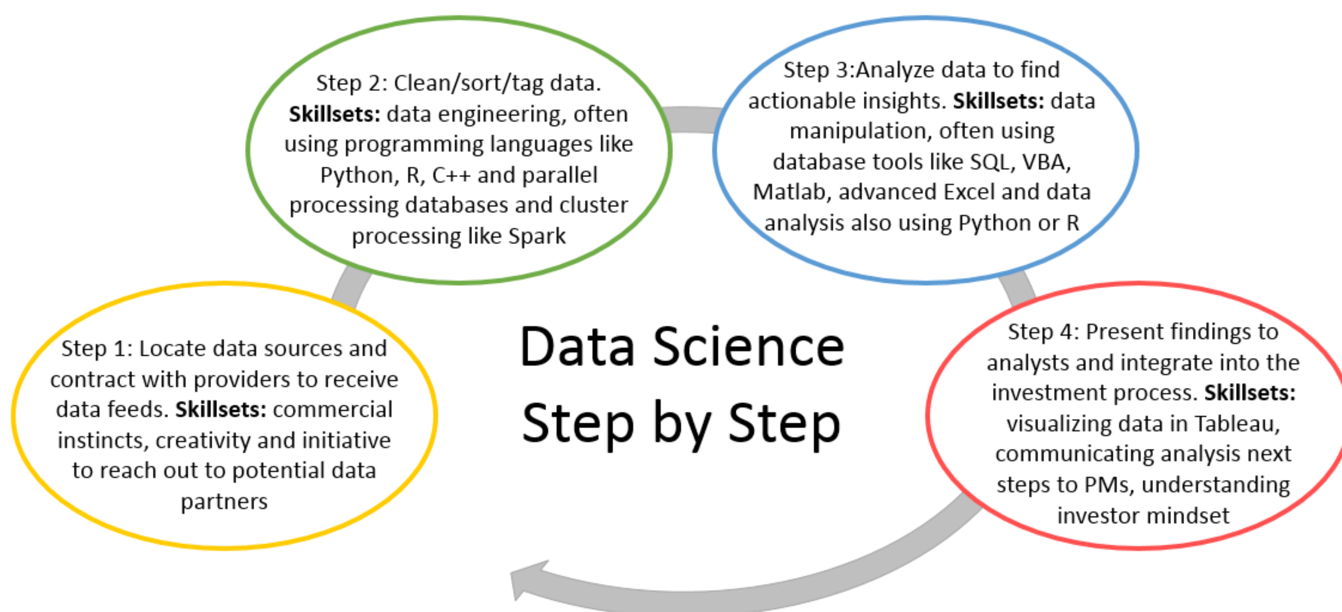
Building a Data Science Capability

You don't have to go far to notice that data-driven investing is changing the face of finance. A recent WSJ headline bluntly stated: "The Quants Run Wall Street Now," and Business Insider labelled data-driven strategies "the future of investing." Apart from the well-known quant and systematic strategies, big data analysis is becoming commonplace at fundamental investment firms, leading to record demand for data scientists. During a September 2017 talk by Ivailo Dimov, senior Data Scientist at Bloomberg, he noted (probably after web scraping and using data analytics!) that there are currently more data scientist job postings on LinkedIn than analyst, trading and PM positions combined. Additionally, the growth of research firms in the space has surged. For example, Earnest Research is one of the New York companies that are "Hiring Like Crazy in September" (from themuse.com, a career site).

But amidst all the excitement, what isn't being covered is how to incorporate data analysis into current investing operations (i.e. what skill-sets are required, and how to organize teams effectively).

Incorporating data science - building blocks

The following model illustrates the four simplest building blocks of activity when incorporating data science into a fundamental long/short equity workflow.



Each stage's range of activities grows in relation to the data source's scale and complexity. For example, in Stage 1, data sourcing is a field unto itself – one that involves liaising with data brokers and suppliers directly, and coordinating with internal constituents. One PB Consulting Group head at a leading bank maintains a record of over 350 data providers currently used by fund managers, and that list grows by roughly 10 names a week. One of the big banks is also looking to provide their own unique datasets, and has recently appointed a Head of Big Data Client Strategy & Business Development to oversee such efforts. The person stepping into this seat told us, "Data exhaust will be an important part of our overall Markets revenue in the future, and given the MiFiD II regulations coming in next year, all of the banks are going to start looking at data as a distinct unit of value."

Firms are increasingly expecting this data sourcing function to be proactive and reach out to potential new sources of "data exhaust," rather than simply wait for data vendors to come knocking. Important questions arise on a more technical level: Can this raw data be productized? How many relevant data points are available over what historical time-period? What tickers could this be relevant to? There are also higher level problems to address: Is the data new? Is it legal? Is it useful?? Which then leads to an extensive

legal examination of the ownership rights behind the data, the oversight of data validation, and back-testing, all of which occur before reaching the negotiating access/potential exclusivity and pricing phase. These functions are critical, yet not well understood, and the numbers of experts who have deep, relevant experience are very few.

Assembling the team

The largest firms with vast budgets are able to staff up by hiring in each of these stages. At firms with a $10Bn+ AUM, there are currently teams of over 100 working across activities.

Most firms don't have access to those types of resources, nor the commitment to act upon them. Many have the attitude of "we want to see that we're reaping benefits before investing further." The temptation is to hire just one "data person," but we're finding that to be a mistake. As one industry source put it, "It's hard to excel at all of the tasks that a good data science operation involves. An individual data person at a firm ends up working on one or two requests from the analysts, and if the data they find doesn't turn out to be particularly helpful, then the experiment can be viewed as a write-off even before it's really had a chance to be tested." In discussions with Matei Zatreanu (former head of Data Science at King Street Capital Management and founder of System2), he made the point that great candidates are also put off by this scenario – why commit to a fund that doesn't seem committed to the approach? There should at least be goals and milestones. For example, if the first couple of projects are successful, then additional hires could be made, and so on.

Consultants that offer data setup services can also be utilized. For a limited time, they can come in, set up feeds, and ensure that an external source (typically not in Excel) pipes into where the analyst can use it (typically in Excel). The solution effectively manages costs variably, and "dips a toe in the water." But aside from the ongoing maintenance questions, the more central concerns of this approach involve sensitivity to sharing the inner workings of the investment process with someone outside the firm, who may be commiserating with competitors. And without having a capability that includes full-time staff, no clear path exists to incorporate new sources of data and grow the big data function.

An alternative option is to kick things off in a "data lite-fashion" by purchasing third party data from industry sources such as 7Park, Yipit, Orbital, Earnest, or M Science. The initial users are often TMT and Retail analysts, as more usable data is often available in those areas. But as these sources increase in popularity, so too does the growing concern of commoditization. As one COO explained, "We've used data for many years to inform our investments. We subscribe to a number of external data providers, but for us it's now about providing a baseline and knowing what the market is being told. Our own strategies are devised internally."

For firms interested in developing their own capabilities and deriving unique insights, the smallest possible team size is a team of two. In this scenario, a data engineer works in conjunction with a data analyst who communicates with the investment team. There is a clear distinction between the questions, "What can we get from this data?," "What does this data say?" and "How does this affect the question we're trying to address?" The individual scraping Twitter who is deep into unstructured data is often not the best person to overcome the natural skepticism of a long-term fundamental analyst. As Chris Willcox, CEO of J.P. Morgan Asset Management, noted at Citi's Business Advisory's recent conference on trends in investment management, "Data analysis will be the key building block for the next generation of active management. The tools are easy to get – they're readily downloadable from the internet – and the skills aren't particularly difficult to acquire. What's most tricky, and what will differentiate, is also having the relevant domain expertise".

Given these factors, a team of three to five is preferable, as it allows for differing skill-sets that provide the capability to test various data sources, and promotes collaboration between analysts across sectors.

Regardless of size, integration is key

This leads us to a final point, which is that data science analysis can't occur in a vacuum. A talented data scientist can use credit card data to predict whether revenues of McDonalds are going up or down. However, to make the leap in predicting the effect on McDonald's stock price, the insights need to be examined in context by an individual who understands all aspects of the business. The fundamental analyst will survey their domain (earnings expectations, merger activity, management changes, product announcements, competitive intel, etc.), and incorporate those subjective data points into their overall analysis. As much as the signals coming from the data can be back-tested to show historical correlation, they can't be relied upon to predict future outcomes all by themselves.

It says something in an organization if the Data Science head reports to the PM rather than a CTO, who in turn reports to the COO. Having someone from the Data group on the Investment Committee sends a signal to the firm, and is a practical way for the data analytics practice to track what is in the portfolio. The team can also hear what is being discussed and get a better idea as to what names in the portfolio could benefit from further investigation to increase conviction levels. But far from being integrated, the data team is often siloed as a separate unit. Admittedly, these individuals have unique jobs and look at the world through very different lenses. Quarters matter to investment analysts, but they don't show up in data sources regarding consumer usage. Data teams speak different languages - figuratively and often literally. Sometimes they are physically located elsewhere, as one data scientist told us, "We literally work in the basement. It's not as bad as it sounds - the lack of natural light isn't a concern because we work in near dark as we face our screens, but it does make us feel like a 'firm within a firm.'" In the future, many believe the distinction between PM and data analyst will have shrunk to zero – but for now, the difference is very real and noticeable.

The beginning, not the end

At the most progressive end, data science is being built into an integrated research approach. Findings from data are combined with insights from primary research (channel checks, expert calls) and even equity research as well. To that end, data science efforts are growing in both depth and breadth. So for a firm looking to hire "someone to do data," this is clearly the beginning of a process, not the end.

News from Odyssey

We're delighted to welcome Sanjeev Sharma to the team. Sanjeev is a 12 year veteran of the industry, coming from Michael Page where he headed the Investment Management and Banking practices.

Read more here: http://www.odysseysearchpartners.com/portfolio-item/sanjeev-sharma/

Interested in Quantamental Trends? Check out Anthony Keizner on this topic in October 2017's Fundfire:

http://www.odysseysearchpartners.com/news/anthony-keizner-on-quantamental-trends/

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